



**Loudoun County**  
**Department of Fire, Rescue, and Emergency**  
**Management**  
**INFORMATIONAL BULLETIN**



**Subject: Shortage of 1:10,000  
EPINEPHrine Prefilled Syringe**

**Date of Issue: July 23, 2010**

**Informational Bulletin: LCFR Informational Bulletin 2010-022**

**Approved:**   
Linda Hale, Deputy Chief of EMS and Training

It has been brought to our attention that there is a national shortage of **EPINEPHrine** pre-filled syringes (1mg/10mL 1:10,000). The stock at the Lansdowne pharmacy has been depleted; therefore, it will have a direct impact on our care delivery in the field.

This dosage/concentration of **EPINEPHrine** is primarily used during cardiac arrest. At this time it appears that the best alternative for us will be to use the 30 mg multi-dose vial (tanker) to draw up and dilute the concentration. The **EPINEPHrine** **MUST** be diluted prior to administration. The multi-dose vial contains 30 mLs of 1:1,000 **EPINEPHrine** which is 30 mg and 30X greater than the required individual dose.

It is the responsibility of the ALS provider to administer the proper dose of medication in the proper concentration as set forth in the protocols. The recommended method to prepare **EPINEPHrine 1:10,000** from **EPINEPHrine 1:1,000** is:

- Using a 10mL syringe, draw 1mL (1mg) of 1:1,000 **EPINEPHrine** from the vial
- Then draw 9 mL Normal Saline from the IV tubing or the IV bag.

**This will give you the correct dose/concentration of 1mg of EPINEPHrine 1: 10,000.**

Since this will be the process needed during a cardiac arrest, where there are many procedures going on and multiple providers, it is imperative that the individual drawing the medication take his/her time to assure the proper dose is administered. If resources allow having one provider draw up and dilute the **EPINEPHrine** ahead of time during a code, each syringe must be labeled to avoid any errors. ALS providers should make sure that they are carrying enough 10 mL syringes during this time. This process lends itself to a very high potential for error, so ALS providers must remain focused and pay attention to detail when drawing up, diluting and preparing the medication for administration.

We are in the process of acquiring luer lock vial adapters to allow for a needless system to reduce the risk of needle sticks while drawing up medications. As soon as they become available we will make them available system wide.

While we are focusing on **EPINEPHrine** in this bulletin, it is important that ALS providers continue to remain vigilant by paying close attention to ensure that the proper drug and dose is administered in all patient care situations.

If you have any questions, please contact one of the EMS Battalion Chiefs.